

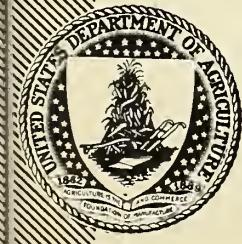
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FEBRUARY 1947

MARKETING ACTIVITIES



U. S. Department of Agriculture
Production and Marketing Administration
Washington 25, D.C.

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The Function of the Government in Marketing

By William C. Crow

Marketing has become a major if not the major problem of agriculture today. We have recently become aware of the fact that, while we have made enormous strides in learning how to produce more and better farm commodities, we have not made nearly as much progress in learning how to distribute those commodities efficiently.

How Far Should Government Go?

If progress in marketing is ever to catch up with progress in production, governmental agencies—Federal, State, and local—will have to cooperate with industry groups in developing and carrying on a real marketing program. There is rather general agreement on that point. This cooperation, however, raises an extremely important question: "How far should Government go in the marketing field?"

Any answer to this question, of course, must take into consideration the changing character of marketing. What was true a century ago, is not necessarily true today.

A hundred years ago the producer dealt directly with the consumer to a much greater extent than he does today. Prices were fixed largely by local supply and demand conditions; thus, quotations that could be translated in terms of the farmer's own produce could be obtained by making a trip to the village. Quality was something that needed no elaborate definition; there it was, for both producers and consumers to see. The transportation problem for producers of most commodities was solved by ownership of stout wagons and strong horses. The farmer, with his barns and cellars, was his own warehouseman; the same was true of the consumer, to some extent. Honesty in the market place—the producer knew personally, in most instances, the people with whom he dealt; so did the consumer. All in all, marketing was a rather simple process in 1847. Consequently, there was small demand, and actually little need, for marketing assistance from governmental agencies.

As the country began to develop, as railroads pushed out over the country, the producer began to have less direct contact with the ultimate consumer. Distance increased in a geographical sense as new producing sections opened up, and in a functional sense as improved processing facilities were developed. Today, prices are determined not by the supply and demand on the market, but the supply and demand in many markets. With consuming markets hundreds or even thousands of miles from producing sections, there has come a need for definitions of quality that are uniform at all places and at all times. The horse and wagon have been replaced by the railroad freight car, the motortruck, and even the

airplane. Distance also has meant the development of storage facilities—huge grain elevators, cold-storage warehouses, and the like. To assure fair play in the markets, a number of regulatory laws have come into being. Under our present complex system of marketing, a great deal of governmental assistance is demanded, and needed, by both producers and consumers.

Market News, Standards, and Inspection

Prices at a particular market may fluctuate materially from day to day—variations that become especially important to the producer when it comes time to sell. If his produce reaches market at a time when the market is glutted, he may sustain a net loss on his entire season's operations. The need for information on prices at the point the farmer's commodities are sold led to the establishment of a Nation-wide market news service about 30 years ago. Today, the Department of Agriculture provides market news coverage on price, supply, and demand conditions at most of the principal wholesale centers, and frequently in producing sections, for many commodities. Much of this work is carried on in co-operation with the States.

Distance from the markets also led to problems revolving around the matter of quality. It was difficult for buyer and seller, a thousand miles apart, to achieve a meeting of the minds when "Choice" or "Fancy" meant one thing at one place and something quite different at another. A common language of trading was necessary to facilitate marketing transactions. To meet this need, official quality standards, which spell out in precise terms the meaning of "U. S. No. 1" and "U. S. Grade A," have been formulated for Nation-wide use for over a hundred important farm commodities and processed food products.

Quality standards, to be effective, must be interpreted accurately and applied consistently. This has led to the development of a comprehensive inspection, grading, and classification service, manned by skilled Federal and Federal-State employees. The judgment of these workers, expressed in terms of the official standards, is generally accepted as an accurate, unbiased appraisal of quality by both buyer and seller.

The farmer or shipper who sends his produce or livestock to an agent or dealer in the market expects a price in line with the quality shipped and the condition of the market at the time of sale. He wants to be assured of a correct accounting for the sale of his property. If he enters into a contract, he needs assurance that the buyer will not be permitted to repudiate the contract without reasonable cause. The need for fair play in marketing has brought about the passage of a number of regulatory laws, such as the Perishable Agricultural Commodities Act, the Federal Seed Act, the Packers and Stockyards Act, and the Insecticide Act.

Producers and shippers want equitable transportation rates, because what they pay for hauling produce to market affects their net returns. Inasmuch as individual producers and shippers have not the time nor the skill to present their case before regulatory bodies, Congress has

authorized the Department of Agriculture to make complaint or petition to regulatory bodies with respect to transportation rates, charges, tariffs, practices, and services. Specialists devoting their full time to transportation matters are able to present in hearings before regulatory bodies information that supports the farmer's side of the issue, as a supplement to information furnished by highly trained experts on the carriers' side. Only when both sides of a case are fully developed before a regulatory body is the record complete enough for that body to render a fair decision.

Governmental agencies assist in other ways. They collect and distribute accurate statistics on production and supplies of agricultural commodities. They help to locate sources of materials, equipment, and storage space when they are scarce. They develop plans for market facilities in consuming centers and producing areas where buyers and sellers can operate efficiently. They make possible the strengthening of cooperative action through the formulation and operation of marketing agreements. They purchase and distribute surplus commodities through the permanent school lunch program, or, as has been done in the past, through direct distribution, the food stamp plan, and the low-cost milk program. The Agricultural Marketing Act of 1946 provides for greatly increased research in marketing and for the strengthening of existing services in the marketing field.

The peacetime marketing services that have been developed over the years have had wide public acceptance. The additional activities provided for in the Agricultural Marketing Act also will be popular. These statements can be made positively because the marketing research and services carried on or contemplated under new legislation in no way replace or restrict the private marketing system. They merely help the private system to work better.

The people of this country are traditionally in favor of private enterprise—though they do not object to an occasional helping hand from governmental agencies. The farmer, for example, wants to be the judge of what he produces, how much he produces, and the manner in which he produces. Yet he will use facts furnished by governmental agencies relative to superior breeding practices, better methods of crop rotation, improved plant varieties, and the like. Similarly, the country shipper likes to ship when, what, and where he chooses. But he needs and wants market news reports, standards, grading, and other governmental services, because they help him carry on his business more effectively.

Wartime Restrictions

It should be pointed out that this freedom of action may be suspended temporarily during a national emergency, as it was during the war years. The Federal Government, during this period, determined the requirements of agricultural products by types of users in this country and abroad. It allocated supplies among civilians, the armed forces, and the allies. In the case of many commodities, it told consumers how much they could consume, told processors and handlers to whom they could sell and for how much. It regulated the use of tin, specified what commodi-

ties could go into refrigerated warehouses, and how long they could stay there. The Federal Government itself purchased and distributed billions of dollars worth of farm commodities. It placed ceilings over and floors under prices for these commodities.

Most people recognized the need for this control. Most homemakers, for example, welcomed rationing because it assured them of at least limited supplies of scarce food items. Food vendors realized that set-aside orders gave the armed forces and fighting allies first call on vital foodstuffs. The railroads cooperated wholeheartedly in measures designed to bring about the most efficient use of an overburdened transportation system.

But the degree of control needed in wartime is not necessarily a measure of what is needed in peacetime. Certainly it is not a measure of what is wanted. Following VJ-day, public criticism of wartime controls over marketing mounted higher and higher. The old saying, "Don't you know there's a war on?" was replaced by, "Don't you know the war's over?" In recent months, most wartime controls over marketing have been removed. The few that remain are under constant review to determine whether even they cannot be eliminated.

It would seem, then, that we already have a rough sort of answer to our question, "How far should Government go in the marketing field?" Briefly, under our American way of doing things, public opinion will allow Government to assist the private system of marketing. But—except in periods of national emergency, public opinion will not allow Government to hamper or replace the private system.

It is by no means happenstance that the preamble to the Agricultural Marketing Act of 1946 starts out with this sentence: "The Congress hereby declares that a sound, efficient, and privately operated system for distributing and marketing agricultural products is essential to a prosperous agriculture and is indispensable to the maintenance of full employment and to the welfare, prosperity, and health of the Nation."

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NATIONAL ADVISORY COMMITTEE MEETS

The National Advisory Committee for the Research and Marketing Act of 1946, closing its second meeting at Washington on February 5, 1947, urged the immediate activation of advisory committees to deal with commodities most likely to have troublesome surpluses soon.

Committees for each of the commodities facing possible early difficulties were expected to be named within a week and called to Washington before the next meeting of the National Advisory Committee. At this meeting, to be held April 14-16, the National Advisory Committee plans to review the recommendations made by the commodity committees and to suggest positive lines of action to be carried out under the new act.

Utilizing Vegetable Wastes

By Louis B. Howard

Every year several million tons of vegetable matter rich in protein, carotene, and riboflavin go to waste on farms and in processing plants. This matter includes discarded culls, vines, leaves, tops, roots, trimmings, peelings, and even whole crops that remain in the fields because quality is poor, demand is lacking, or labor is short. For some years USDA researchers, contemplating this good green mass, have been asking themselves how it could be put to use. Lately they've been getting some answers.

Leaves and Tops

Since leaves form the most valuable portion of the vegetable wastes, chemists of the Department's Eastern Regional Research Laboratory, operated by the Bureau of Agricultural and Industrial Chemistry, for several years have been studying the carotene and riboflavin content of leafy wastes, and methods of extracting and purifying it.

Working with the Delaware Experiment Station, these researchers have studied the nutritional value of dried leaf meals and ways of preparing them as a poultry feed supplement. The studies have revealed that some vegetable wastes have so much carotene, they can be used to produce vitamin concentrates. Dried pea vine wastes compare favorably in quality with commercial alfalfa meal, and other dried wastes are better. The nutritional value of the leaf portions of the various vegetable wastes used in the experiments was about twice that of the stems. Broccoli leaves were high in protein, carotene, and riboflavin. Poultry feeding tests showed that broccoli leaf meal is better than lima bean meal for poultry feed, and nutritionally better than commercially produced alfalfa meal. Vegetable meal produced from turnip and carrot tops was as good as alfalfa meal, which in turn was a little better than meals produced from pea vines.

The laboratory researchers have developed a method of separating the leaf blades, rich in protein and vitamins, from the less valuable stems and midribs. Leaves tested were of broccoli, beets, spinach, turnips, carrots, and lima beans. Each required a slightly different treatment.

Pea vines and carrot tops can be successfully dried in alfalfa driers. They are porous and easier to dry than beet tops, turnip tops, and lima bean and broccoli leaves, which must be turned frequently as they dry. This turning can be managed successfully if the driers are equipped with a series of aprons or conveyors that turn the material and break up the lumps.

It was found that the leaf-blade portion of vegetable wastes (except pea vines) can be flash-dried with air at 240° F. The leaf becomes dry and brittle, the stems remaining moist and tough. Stones break up

the leaves and separate them from the wet stems within a rotating screen. Thence the leaf material passes into a grinder, issuing as meal.

The stems are then chopped or crushed, which makes them dry easier. Stems produce a lower-grade product of less nutritional value. The stem product and the leaf meal are marketable either mixed or separate. Pea vines can be dried, ground, and screened without a separation of the leaf parts.

Raw Material Should Reach Drier Quickly

The experiments brought out the importance of getting the raw material into the drier quickly. It is easier to feed carrot tops and similar material into the drier when they are chopped, but chopping is not recommended for large, succulent leaves such as broccoli leaves, which tend to lose carotene and their fresh green color the finer they are cut. Scorching reduces the value of the meal for feed; a drying temperature of about 240° F. seems to give the best results. The moisture content should not exceed 10 percent.

The cost of processing these wastes into leaf meal is estimated to range from less than a cent a pound (lima bean waste) to about 3 cents (beet tops).

The research men advise caution in connection with insecticides. Be sure, they say, that if the meal is made from crops treated with lead arsenate or copper compounds, the poisons are not present in the meal in toxic quantities.

What has been done to dispose of this waste in the past? How much of it is there in the United States? To what extent might we utilize such an amount? What considerations are involved in commercial utilization? Which vegetables offer the best prospects?

On the farm there have been, in general, two ways to dispose of green vegetable waste. Part of it could be used to feed the animals on that farm. And part of it could be plowed under. At the processing plant, disposal has been expensive as a rule. Some plant operators have solved the problem by keeping a herd of cattle to eat the waste, but in general it has had to be treated for disposal as sewage, or hauled to a dump or back to the farms it came from.

Prospects of Commercial Utilization

In considering how vegetable wastes might be utilized on a commercial scale, USDA has made studies to determine (1) how much of various kinds of waste is available, (2) which production areas offer the best supply sources, and (3) the seasonal yields of various types of waste in each production area.

In 1946, U. S. production of vegetables for the fresh market and for processing totaled some 15,533,000 tons. For that year the quantity of vegetable waste is estimated at 2,765,130 tons from fresh-market

crops (calculated on 25 truck crops), and 2,905,314 tons from processing crops (calculated on 11 truck crops). Processing plants in operation during 1946 included 30 to 40 vegetable dehydration plants, the plants operated by some 500 frozen-food packers, and hundreds of vegetable canneries. These figures will serve to suggest how great a supply of vegetable waste might be tapped for commercial utilization.

Leafy wastes offering the greatest returns (because of their nutritive value and the quantity grown) include beets, broccoli, cabbage, carrots, cauliflower, kale, lima beans, peas, rutabagas, spinach, tomatoes, and turnips. Tomato leaves cannot be used to produce leaf meal, but their suitability for use in manufacturing animal feed more than makes up for this inadequacy.

The time and the length of crop seasons vary, depending on the vegetable and the place. This fact must be taken into account in any plan to utilize vegetable wastes commercially. For example, the season for growing peas in most areas is relatively short, but cabbage is available in the Pacific coast region the year round. The opening and closing dates of the packing season also vary by product and area. For example, tomatoes are packed in Michigan from mid-August through September; in California, from July 10 to November 10. Since the pea processing season is short it would be unprofitable to install driers for the waste from this crop only, unless the vines could be ensiled to prolong the drying season. But it might be possible to combine the drying of pea vines with the production of alfalfa meal.

A detailed discussion of processing methods, equipment, and the costs of operating a plant for processing vegetable waste is given in USDA circular AIC-76, "Processing Vegetable Wastes for High-Protein, High-Vitamin Leaf Meals."

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USDA SURPLUS PROPERTY TRANSACTIONS

From May 1, 1944, to December 31, 1946, USDA acquired under the Surplus Property Act products having a cost value of \$102,307,720. Disposals to December 31, 1946, on the basis of cost value, totaled \$79,700,955, leaving an inventory amounting to \$22,606,765, cost value. The disposals with a cost value of \$79,700,955 brought an actual cash return of \$68,392,350, or 86 percent of the cost value.

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CHICK HEADS MAINE DIVISION OF MARKETS

George H. Chick, formerly assistant chief of the Maine Division of Markets, has been named to head the division. Mr. Chick succeeds Charles M. White, who is retiring after 29 years of outstanding service.

Standardization and Inspection Of Fresh Fruits and Vegetables

By Grace E. M. Waite

Because of a rather slow market this season, the citrus industry in one of the citrus-growing States recently called for the tightening of a popular orange grade. This grade, a combination, required that each container of oranges should have not more than 60 percent of U. S. No. 2's and at least 40 percent of U. S. No. 1's. Some people in the industry believed that if the combination percentages were exactly reversed, with 60 percent of the higher grade oranges and 40 percent of the lower grade, the new combination might suit the market better. So the industry people asked the State citrus commission to invite standardization specialists from the U. S. Department of Agriculture to investigate the local situation and recommend a revision of the grade standards.

Amendment

The Department investigated. After full consideration of suggestions from growers, packers, shippers, and other handlers it issued an amendment, effective January 2, 1947, which provided that under the combination grade for oranges each container must include not less than 50 percent of U. S. No. 1 grade and that the remainder must meet the requirements of U. S. No. 2 grade, with the additional qualification that not more than half the surface of the fruit may be affected with discoloration.

This is an example of the ever-changing, never-ending work of grade standardization, without which—and its companion work, inspection—buyers and sellers would lack a common trading language, and the marketing of fresh fruits and vegetables would be a vastly slower, smaller-scaled, more wasteful operation than it is today.

The use of standards is compulsory under the Marketing Agreement Act of 1937, and in some States the grading of certain fruits and vegetables is compulsory. But for the most part U. S. standards for fresh fruits and vegetables are permissive; that is, they are merely available to the States, the trade, and the public generally for use as a measure of quality in buying and selling.

For 61 different fresh fruits and vegetables there are now 99 standards. The field is not yet covered for all products; standards issued so far are primarily for use in the wholesale trade or in the purchase of raw products for processing.

Standards for farm products are almost as old as commercial agriculture, but work toward the development of uniform national standards for fresh fruits and vegetables was begun during the first World War.

In 1918, grades were recommended for potatoes, strawberries, and Bermuda onions. By 1922, under the agricultural appropriation bill for the 1923 fiscal year, the Department had received authority to conduct an inspection service both at shipping points and in receiving markets, and to establish voluntary standards for fruits and vegetables. This authority has been granted in the agricultural appropriation act each year since that time. The earliest standards developed for raw fruits and vegetables for processing were issued in 1923, for cannery tomatoes. Later, separate standards were recommended for tomatoes to be used for the manufacture of strained tomato products. Standards for products for processing have also been issued for apples, asparagus, snap beans, lima beans, beets, cabbage, carrots, red sour cherries, sweet corn, pickling cucumbers, grapes, onions, freestone peaches, pears, peas, spinach, and strawberries.

Many Uses

The official standards have many uses. By setting up a common language of quality, they remove the need for a personal inspection of the products by buyers and lenders of money. They help settle disputes over quality. They provide a buying guide for consumers. They provide the basis for several very useful types of activity—for Nation-wide market reporting and an intelligible comparison of market prices, throughout the country and of one year with another; for grading, which brings higher market prices for products; for warehouse receipts, on which money can be borrowed; for the physical separation of farm products into quality groups, so that commercial needs and wants may be filled at minimum distribution costs.

How do standards come to be developed?

Somebody needs them. Some group, ordinarily, or combination of groups. Producer groups may need a quality guide as a basis for packing and selling a particular commodity. Or dealer groups, in a resolution, may ask for a common language, a uniform basis for price quotations, improved methods of marketing. Or a consumer group may request quality-identified products. Or the requests may come from warehousemen, Government loan agencies, bankers, or public or private institutions.

After USDA recognizes the need for standards for the particular commodity and decides to formulate them, what happens then?

First, a preliminary draft must be developed. The Department begins field investigations, seeks out the ideas of prominent growers and shippers of the commodity in the principal producing sections. Meetings are held with industry members; grading and packing operations are observed and the principal defects of the product in each growing region are noted. The ideas of market receivers on grade requirements, the experiences of farmers, the trade, and consumers are considered; marketing practices, competing areas, and varied interests are compared. The physical characteristics of the products are studied. Information on plant diseases and insect injuries is collected from fruit and vegetable specialists and pathologists at universities and agricultural colleges.

Tests are made to determine the practicability of projected standards under commercial conditions. Whether the particular industry concerned will benefit is determined. Finally the preliminary draft is drawn.

This draft is subjected to searching, practical study. Suggestions are received and considered from interested producer, consumer, and trade organizations and Federal and State agencies. Finally, after a period of development lasting anywhere from a few weeks to several years, the Department issues the official U. S. standards.

But formulation of the grades does not end the work. The standards are subject to revision as significant changes occur in production, merchandising practices, and uses. Market and price surveys, consumer-preference studies, and laboratory tests must be made to determine whether the standards are meeting needs, to develop and refine grading technique and apparatus for better measurements of quality, and to find improved ways of identifying the quality of products by grade for consumers.

Factors in Formulating Standards

When standards are formulated, what are the factors to be considered? What determines the definite quality groupings, each with its specifications and descriptions, varying according to the product?

One fundamental is that a standard must recognize all significant quality gradations of the entire national supply of a commodity. It must apply to all segments of the supply in order to form a basis for trading in all qualities of the product.

The grades are so defined as to recognize commercial distinctions. In general, the highest grade in a set of standards represents the quality characteristics and degrees of condition that are most sought after and that bring the highest market prices, whereas lower grades usually include inferior quality characteristics.

A grade in a set of standards generally specifies the lower quality limits permissible within that grade, although sometimes it prescribes both the lower and the upper limits. The limits for a practical grade must be broad enough to avoid unnecessary technicalities and must conform to good trade practices. Consequently, a product near the bottom limit of a grade may differ somewhat in merchandising value from one at the top. The extent to which a grade reflects the relative value of the product depends on how fully it deals with the various quality factors, on the range of quality permitted within the one grade, and on the merchandising practices followed.

It is not enough for national standards to be merely logical and scientific. They must also be practical. It might be possible to develop standards that would measure every slight variation in quality, with a large number of grades for each product, but such standards would be too cumbersome for practical use.

Some grade-determining characteristics, such as size and weight, are relatively easy to define. Certain other qualities like color and

freshness are difficult to measure precisely; yet they must be defined in the grades in a way that will fill ordinary commercial needs. Grade factors for fresh fruits and vegetables also include shape, firmness, and freedom from decay, freezing, and other serious injury. The grade descriptions may seem quite technical and complicated to the layman, but the industry knows they are closely related to the marketability, to the value of the product. In addition to standards for grades, the standards for fresh fruits and vegetables may include standards for bunching (for bunched vegetables), uniformity of size, tightness of pack, and the packing arrangement in containers.

The numerical system is used to designate the grades. U. S. No. 1 represents the highest grade product that may be packed under commercial conditions. Products in this grade, which usually includes more than half the season's crop, are of good average quality. U. S. No. 2 usually represents the quality of the lowest grade it is desirable to pack. Its requirements are so low that, except in a time of acute shortages, shippers would not consider it advisable to ship products that do not measure up to these requirements.

In-Between Grades

In-between grades represent quality gradations for more highly specialized products. U. S. Fancy signifies a product superior to U. S. No. 1 in freedom from defects, and products so identified command a premium price. Only a small portion of the crop receives this designation. U. S. Extra No. 1, often applied to peaches, potatoes, and some other products, is an additional grade for quality between U. S. Fancy and U. S. No. 1.

U. S. Commercial and U. S. Combination designate grades between U. S. No. 1 and U. S. No. 2. The combination grade is made up of certain percentages of products meeting the requirements of U. S. No. 1 and U. S. No. 2.

Since the sorting and packing of fruits and vegetables is necessarily a rapid process, a reasonable tolerance must be allowed for defects. Usually apples, peaches, citrus fruits, and onions are sorted, and the defective specimens are taken out as the products move on conveyor belts. Under this system some defects, such as relatively small spots of scab on apples, may be expected to escape the sorters' attention. The percentage of tolerance for defective specimens usually ranges from 5 to 10 percent. Soft rot, which may spread to other specimens, and other such serious defects, are generally restricted to 1 or 2 percent.

Practically all the States use U. S. Standards as a basis for packing most of the fresh fruits and vegetables they produce commercially. Some States require certain products to be graded according to official State grades. Some also require produce shipped into the State to be graded according to official standards. A number of States require grading according to U. S. standards and the marking of containers with correct U. S. grade designations.

After the standards are promulgated, information about them is disseminated in various ways. The cooperation of affected public and private organizations is solicited. Information goes out through the press, publications, posters, exhibits, demonstrations, industry labeling and advertising. And it is also passed along by those workers without whom the standards would have little value--the graders and inspectors who see that the standards are uniformly applied and interpreted.

Inspection

Inspection to "insure the soundness of fruits, vegetables, and other food products" when received in important central markets was originally authorized by Congress as an emergency measure just after this country entered the first World War. Since 1923, when appropriations for standardization work began, provision has also been made in the annual Federal agricultural appropriation for inspection, at both shipping points and terminal markets.

Beginning in 1942, cooperative Federal-State agreements for shipping-point inspection work have been in force with all 48 States. During the 12 months ended last June 30, fruit and vegetables inspected at shipping points totaled 684,894 carloads, not including an additional 96,863 carloads of raw products inspected at processing plants. In the same period inspections including those at receiving markets numbered 895,285 carloads. Inspection service is available to the industry on the payment of fees.

Federal inspection offices are in operation in 54 of the larger cities. Federal supervisors maintain offices the year round in important fruit and vegetable producing States; elsewhere the supervisors are on hand only during the active shipping season. Licensed inspectors follow the harvests from State to State. By inspecting citrus and vegetable crops in Florida and Texas in winter, and then moving north, inspectors may keep employed practically all the year round.

The Federal supervisor assembles his crew, consisting of experienced inspectors and recruits, as each shipping season starts. Sometimes inspectors training schools are held earlier. For example, training schools are held regularly each year for the 85 to 150 inspectors employed to inspect tomatoes for Ohio and Indiana canneries. Inspectors schools are also held in important citrus, apple, and potato growing areas.

The inspector must know his grades. He must recognize the defects and diseases of the product, be able to score grade defects and make accurate records and reports. Painted plaster models of fruits and vegetables, illustrating the lower limits of a grade and in particular the defects of color and shape, are used in the training courses. Photographs, colored and uncolored, are also used.

At first, the inspector usually works in only one or two products. It may take him several years to learn to grade a large number of products, but when he does his versatility often provides him with steadier

employment. The practical experience he gains often helps him to qualify for a desirable job in the Federal or State service, or in industry.

The inspector does not examine all the packages in the shipment. If he is assigned to a packing house to inspect boxed apples being loaded into cars, he examines about 50 apples from a container, and notes the defective or off-sized apples from this sample on his score sheet. After inspecting a few sample boxes, he reports to the foreman the size and grade of the product and any defect in car equipment that may injure the shipment.

The inspector ordinarily selects about 15 boxes at random from the load and examines samples from each. He records the results of his sampling on his work sheet, totals the score. The usual evidence of official grading for any commodity under the standards is a certificate issued by a Federal or a federally licensed inspector, which is mailed to the applicant. This inspection certificate is accepted as *prima facie* evidence by all Federal courts and most State courts. The shipper knows that if the receiver rejects the shipment, he will have to show cause.

Inspectors often give valuable help to employees of packing houses in the proper methods of grading, packing, and loading produce for shipment. In some States the inspection of raw products for processing at canneries or other processing plants is more important than shipping-point inspections. Federal supervisors and inspectors show growers how to apply U. S. standards to their products. For example, at the beginning of the tomato season, inspectors often hold picking schools in the big producing areas so that growers may learn the standards requirements and teach their pickers how and when to pick tomatoes that will bring the best prices.

Inspection at Receiving Markets

At receiving markets, inspectors are concerned mainly with cars of produce whose quality the receivers believe has changed in transit. But a receiving-point inspection may also be required for grade. If a receiver thinks a consignment of No. 1 potatoes contains too many No. 2's or culls, he may ask for an appeal inspection. If the consignment is found to have been graded inaccurately, no charge is made for this appeal, but if the grading proves accurate, the charge is doubled.

The inspection procedure at receiving markets is very much the same as at shipping points. Inspectors must be able to identify fresh fruit and vegetable diseases, and say whether they developed before shipment or in transit. Market pathologists located in Chicago, New York, and Washington are also available to help identify various fruit and vegetable diseases.

Grades, standards, and the inspection service are essential to administering the provisions of the Perishable Agricultural Commodities Act, in effect since 1930, which prevents unfair and fraudulent practices in fresh fruit and vegetable marketing in interstate and foreign commerce.

GILMER NAMED PMA ADMINISTRATOR AND CCC PRESIDENT

Appointment of Jesse B. Gilmer as Administrator of the Production and Marketing Administration and President of the Commodity Credit Corporation was announced by Secretary of Agriculture Clinton P. Anderson February 10, 1947. He had served as Acting PMA Administrator and Acting President of CCC since last November.

Gilmer assumes the duties of his new assignments with a background of more than a dozen years of administrative experience in several Department of Agriculture agencies. He was born at Rock Springs, Tex., in 1910. Following graduation from New Mexico A. and M. College in 1934, he joined the staff of the Agricultural Adjustment Administration for special dust bowl work in New Mexico. He transferred to the Resettlement Administration, which later became the Farm Security Administration, in 1935. With this agency he was Assistant Regional Director, and later Regional Director of the Southern Great Plains Region, with headquarters at Amarillo, Tex., before being called to Washington as Assistant Administrator.

In 1945, Gilmer was appointed Executive Assistant to the President of the Commodity Credit Corporation and was also named Secretary of the Corporation. When PMA was established in August 1945, Gilmer was named director of its Budget and Management Branch. He was appointed Deputy Administrator and Vice President of CCC in April 1946, and Acting Administrator and Acting CCC President in November. His permanent home is El Paso, Tex.

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NATIONAL ASSOCIATION OF MARKET MANAGERS PLANNED

Formation of a national association of market managers was foreseen by a committee that met with U. S. Department of Agriculture officials in Washington on February 4, 5, and 6. Arrangements were made at the meeting to hold a national conference in Washington during the latter part of May to work out organization details and elect officers.

Members of the temporary committee that is exploring the possibility of a national association are: W. L. Wilson, Director of State Markets of Florida (temporary chairman); B. A. Di Vito, manager of the New Haven Market Exchange, New Haven, Conn.; Don Evans, manager of the Miami Wholesale Market, Miami, Fla.; Russell Swiler, manager of the Northern Ohio Food Terminal, Cleveland, Ohio; G. B. Hogan, Assistant Director of State Markets of Florida; Leigh Lawrence, wholesale food distributor, Washington, D. C.; and H. E. Crouch, Secretary, New York Market Managers Council.

A national association representative of both terminal wholesale and farmers market managers has long been urged in marketing circles. Such an association, it has been felt, would serve as a clearinghouse for the exchange of ideas and would give market managers a united front for an attack on mutual problems.

Insecticides for 1947 Crops

By Max Phillips and W. G. Reed

Increasing supplies of some insecticides and fungicides are becoming available for use in 1947 crops, and PMA workers in charge of administering the Insecticide Act, which provides for fair trade practices in marketing these products, are already at the job of seeing that the products do what is claimed for them.

Rotenone

The supply of rotenone, while still short, will be larger in 1947 than in 1946. As an insecticide, rotenone is effective as both a contact and a stomach poison. In quantities toxic to insects, it is less harmful to man than the arsenicals. Rotenone is the poison that the first white people arriving in South America found the Indians using to catch fish. The Indians ground rotenone-containing roots, sprinkled the powder into pools and dammed-up streams. The drug in the powder stunned the fish, made them easy to seize, yet the Indians ate them with no ill effects.

Used as a general garden insecticide, rotenone protects peas against weevils and aphids, cabbages against worms and aphids, beans against beetles. It also protects cattle against lice, lambs against lice and ticks, and is effective in household insecticides. Rotenone-containing roots and the powder ground from them are imported, principally from South America and the Dutch East Indies. U. S. Department of Agriculture research, which helped make it possible to standardize insecticide materials containing rotenone, has enabled manufacturers to produce more reliable rotenone insecticides. This research has been responsible for the increased use of derris, cube, timbo, and barbasco roots in rotenone production, chiefly for agricultural insecticides. Imports of rotenone roots shot up from 4,500 pounds in 1931, when they were first imported, to 6,500,000 pounds in 1940.

Pyrethrum, Nicotine, and DDT

Increased supplies of pyrethrum, principally from west Africa, will be available in 1947. Pyrethrum is produced from the flowers of the pyrethrum plant—a member of the chrysanthemum family. Nontoxic to man but deadly to bugs, it has become one of our leading weapons in the never-ending war on insects. It is especially effective against leafhoppers, on grapes, sugar beets, potatoes, beans, and various leafy green vegetables, and is widely used as an ingredient in household insecticides. Several new synergists (products whose effect is greater than the total effects of the ingredients used independently) are being used to stretch the supply of pyrethrins.

The demand for nicotine is such that it will probably continue in short supply during 1947. Produced from low-grade tobacco leaf and tobacco waste, nicotine is used for controlling aphids, which attack a number of fruit and vegetable crops.

Commercial demand for coal tar, a DDT ingredient, is largely responsible for the shortage of DDT, but increasing supplies are expected and farmers should be able to fill their needs. DDT is a contact and stomach insecticide deadly to a great variety of insects. Since its effects on warm-blooded animals are not yet fully known, directions for its use should be followed carefully. DDT kills leafhoppers, plant bugs, Japanese beetles, flea beetles, certain caterpillars, and flies and other household pests. It is effective in destroying horn flies and lice on animals, fleas on dogs. Recently, growers say, it has been especially useful in controlling potato bugs.

Arsenicals, Fumigants, and Fungicides

Both lead and arsenic, constituents of lead arsenate, are short. Lead production has not met the demand for the manufacture of paint and other products, and arsenic shipments from Sweden have been smaller than usual. Lead arsenate can be used on a wide variety of fruits and vegetables--particularly apples but also on orchards and home gardens in general--without injuring the plant. Calcium arsenate, a cheaper kind of arsenate, will be more plentiful because the supply of calcium is sufficient. Calcium arsenate is used to fight potato and tomato "bugs" and cotton boll weevils.

The supply of fumigants is expected to be adequate in 1947, except possibly for paradichlorobenzene, also a coal-tar product. Fumigants are sometimes used to treat the soil in which food crops grow, in order to control insects and nematodes (eelworms). They are also used in fumigation tents for treating citrus trees and in food processing plants, warehouses, food-storage bins, public buildings, hospitals, and homes. A new DDT mixture (dichloropropane-dichloropropylene) promises to be an effective soil fumigant for the control of wireworms and root-knot nematodes. This may be helpful to producers of carrots, beans, and tomatoes in the South and West, and of pineapples in Hawaii.

Adequate supplies of both copper sulphate and sulfur, which are prominent among the materials used in manufacturing fungicides, will be available for the 1947 crops. Many fruit and vegetable crops need spraying for protection against fungus diseases.

The Insecticide Act

The marketing of insecticides and fungicides is regulated under the Insecticide Act of 1910, which was designed to protect farmers and other users against losses from misbranded products. With respect to any insecticide, paris green, lead arsenate, or fungicide that is adulterated or misbranded within the meaning of the act, this legislation makes it unlawful (1) to receive; (2) to manufacture in the District of Columbia or any Territory; or (3) to ship from one State to another, or to ship between this and any other country. The U. S. Department of Agriculture is directed to examine specimens of insecticides to determine compliance. "Insecticide," as used in the act, covers substances, or mixtures of substances, for use in "preventing, destroying, repelling, or mitigating" insects wherever they may be found.

Inspectors in USDA's Production and Marketing Administration investigate insecticide shipments that may have been made in violation of the law. They check the products of insecticide and fungicide manufacturers and distributors, examine the records of railroads and express and trucking companies to locate interstate shipments. Collected samples get tests--chemical, microscopical, physical, and entomological--and other tests are made on animals and in orchards, gardens, and greenhouses. If the product is adulterated or misbranded, the shipper (or other interested person) is given a chance to explain why he should not be prosecuted.

Under the act, all the required wording on the label of an insecticide or fungicide must be in English. If there are inert ingredients, the label must show the name and percentage of each, or the names and percentages of all active ingredients and the total percentage of inert ingredients. The label must give equal prominence to all ingredient names: "Inert Ingredient" must be as conspicuous in type and position as "Active Ingredient." The ingredient statement must be no less conspicuous than the other wording, and so placed on the label--and on the carton, if any--that the purchaser can see it easily. Misleading statements are prohibited.

Besides its regulatory work, PMA during the last year has conducted a service of passing on the legality of labels proposed for many DDT-containing compounds and newly developed aerosol bombs and repellents that were readied for the market after the war ended. During an 8-month period 6,000 labels were submitted, some of them for the newer insect repellents, new quaternary ammonium compounds used as disinfectants, Velsicol 1068, and Gammexane.

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TRANSPORTATION INSTITUTE MEETS IN NORTH DAKOTA

PMA speakers cooperated with North Dakota State officials and with representatives of the North Dakota Farmers Union and other organizations in a "State agricultural transportation institute," the first meeting of its kind ever held, at Jamestown, N. Dak., on January 17-18. Purpose of the institute was to share ideas on the transportation of farm products, and to study and bring out the relation between freight rates and the net prices that farmers, orchardists, and stock raisers receive for their products. The meeting was sponsored by the North Dakota Farmers Union.

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MAPLE MARKET CONDITIONS STUDIED

Meeting recently with S. G. Judd, Commissioner of Agriculture of Vermont, a special price committee of the Sugar Makers Association and a group of packers studied the factors that will affect maple sugar prices during the coming season.

MARKETING BRIEFS:

Grain.—About 1,200,000 long tons (46,500,000 bushels) of U. S. grain and grain products were exported in January, USDA estimates, bringing the total for 7 months (July through January) to 6,237,000 long tons. PMA exported about two-thirds, the remainder moving through commercial channels.... Export allocations of 1,500,000 long tons of wheat, flour (in wheat equivalent), corn, grain sorghums, and barley have been announced for March.... There will be no corn marketing quotas and no corn acreage allotments for the 1947-48 corn production and marketing season. ... In calculating the quantity of rice creditable against set-asides, exports to Cuba are counted at half the actual quantity exported, under a recent amendment to WFO 10. Previously, exports to Cuba were not credited against the set-aside.... Discontinuance of restrictions against the use of corn by distillers becomes effective February 6 through an amendment to WFO 141.1. Continued under the order are requirements (1) that no wheat or wheat products may be used in the manufacture of distilled spirits for beverage or industrial purposes, and (2) that no rye shall be used in the manufacture of ethyl or butyl alcohols.

Livestock and Wool.—Approximately 115,000,000 pounds of meat and meat products will be allocated for commercial export during January-March 1947. Procurement will be made by foreign governments themselves through regular commercial channels.... Foot-and-mouth disease, the livestock plague that has broken out in Mexico, is highly infectious and is spread chiefly by animals. Persons who have visited infected premises are the next most frequent carriers. Other danger sources are infected vehicles and products of various kinds, including garbage containing fresh meat.... An average increase of a cent a pound, clean basis, in the selling price of wool owned by the Commodity Credit Corporation has been necessitated by the increase in the parity index as of January 15. The price adjustments in the schedule of selling prices will vary by grade and classification.

Potatoes.—USDA has urged potato growers and shippers to pack U. S. No. 1 grade potatoes with a minimum diameter of 2 1/2 inches for the round type and 2 inches for the long type, and to eliminate potatoes measuring 3 3/4 inches or more in diameter or weighing more than 16 ounces. This would give the consumer a "super" quality potato, since the standard U. S. No. 1 potato, unless otherwise specified, measures at least 1 7/8 with no maximum size limitation.... A revised potato acreage goal of 2,517,000 acres, a reduction of 152,800 acres from the goal announced last October 31, was announced in January. The downward revision was made in consideration of an upward revision of 1946 yields per acre and a downward revision of 1946 acreage. The previously announced production goal of 375,000,000 bushels stands.

Poultry and Eggs.—USDA has announced a Nation-wide price-support program for turkeys. To continue until June 30, the program may involve Government purchase of 10 million pounds of turkeys including 1946-crop birds remaining unsold by producers, and breeding stock that will be marketed late this spring.... Under another program USDA will purchase frozen eggs as a direct price-support measure. Beginning February 5,

offers of frozen eggs are to be received from egg breakers and freezers until further notice, for delivery within 30 days after acceptance of offers. Breakers and freezers participating must certify they have paid producer prices averaging not less than 33 cents a dozen for all the shell eggs they buy.... More than 70 industry representatives have been invited to attend a conference February 12-13 at the Department of Agriculture in Washington to hear a report covering a 2-year study of shell egg case tests.... USDA's dried egg purchase program has been extended to obtain an additional 10 million pounds for the United Kingdom.... Selection of Denmark as the host nation for the eighth World's Poultry Congress, to be held in July or August 1948 (probably in Copenhagen), was announced in January by a special committee of the World's Poultry Science Association. The committee, of which W. D. Termohlen, PMA Poultry Branch director, is chairman, was named to consider invitations from various countries and make the final choice. Object of the congress, the first since that held in Cleveland in 1939, will be to appraise the position of the poultry industry in world food production and to seek means of improving poultry production efficiency.

Raisins and Zante Currants.—WFO 16 has been terminated, effective January 18. Since 1942, this order had controlled the use of raisins and Zante currants.

Protein Meal.—USDA has recently announced emergency allocations of protein meal to seven European countries, good for the first 6 months of 1947, and chargeable to world allocations of protein feeds for the respective countries as recommended by the International Emergency Food Council. Countries and quantities in long tons are: Belgium, 10,000; Denmark, 10,000; Finland, 5,000; France, 15,000; Netherlands, 20,000; Norway, 5,000; and Sweden, 10,000. Any type of oil cake or meal may be purchased against the allocations, but claimants have been asked to buy at points from which movement to ports will interfere as little as possible with the food export program. The actions are in line with USDA's policy of making emergency protein feed allocations to needy countries as supplies permit.

Tobacco.—The 1947 national marketing quota of flue-cured tobacco that was proclaimed on July 1, 1946, has been increased 10 percent. In terms of acreage, the increase will provide total allotments of about 1,250,000 acres—comparing with 1946 allotments of 1,257,000 acres.

Flaxseed.—The 1947 crop of flaxseed will be supported at \$6 a bushel, U. S. No. 1 flaxseed, Minneapolis basis, an increase of \$2 from the support price announced last September. Purpose of the increase was to encourage producers to plant 5,000,000 acres, the goal acreage announced last November, which was 1,000,000 more acres than the goal originally announced last September.

Fats and Oils.—USDA has announced fats and oils export allocations totaling 138,000,000 pounds for the first quarter of 1947, plus unshipped balances of 71,700,000 pounds (principally by UNRRA) from the fourth quarter of 1946. Allocations for the first quarter of 1946 totaled 224,000,000 pounds.... USDA has set the basis for granting import per-

mits for copra and coconut oil. A permit for the importation of not more than 10,000 tons of copra for domestic consumption will be granted to any oil seed crusher who has previously crushed copra. Permits for the importation of coconut oil for domestic consumption will be granted to importers who have previously imported coconut oil. After receiving a permit and making purchases abroad, an importer may obtain a new permit for further importations.... Permits for the importation of rapeseed oil from China will be issued within the limits of International Emergency Food Council allocations during the first quarter of 1947.

Naval Stores.—A revised schedule of fees and charges for USDA inspection of naval stores provides for an over-all increase of 10 to 15 percent. The rate increases were necessitated by a reduction in volume of the products handled and increased costs.

Dairy Products.—Cheese, evaporated milk, dry whole milk, and non-fat dry milk solids have been removed from allocation. Butter and sweetened condensed milk continue under allocation to export claimants, but not to domestic claimants (such as U. S. civilians, Territories, military agencies).... After analyzing industry exceptions, USDA has announced tentative approval of an amendment to Federal Order 32, regulating milk handling in the Fort Wayne, Ind., marketing area. Producer approval or disapproval of the proposed amendment will be determined at the same time the marketing agreement is submitted to handlers for signature.

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SHIFT MADE IN ADMINISTRATION OF COMMODITY EXCHANGE AUTHORITY

Effective February 1, administration of the Commodity Exchange Act will be under the Commodity Exchange Authority as an organizational unit directly responsible to the Secretary of Agriculture. The act has been administered in PMA's Compliance and Investigation branch.

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MARCH PLENTIFUL FOODS LIST

The following foods are expected to be in plentiful supply throughout the greater part of the United States during March 1947: Potatoes; oranges and canned orange juice; grapefruit and canned grapefruit juice and segments; spinach, fresh and processed; peanut butter; eggs; and commercial broilers (particularly east of the Mississippi River).

Plentiful supplies of heavy tom turkeys will be available for use by hotels, restaurants, and other institutions or organizations engaged in group feeding. Kale should be rather plentiful this March in the States along the east coast. In the use of this list, the local availability of each item should be verified.

ABOUT MARKETING:

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Addresses and Statements:

Making the Best Use of the Agricultural Plant, by Clinton P. Anderson, Secretary of Agriculture, Chicago, Ill. January 7, 1947. 10 pp. (Mimeo graphed)

Statement on Agricultural Price Support Policy, by Clinton P. Anderson, Secretary of Agriculture, before the House Committee on Agriculture. January 22, 1947. 13 pp. (Mimeo graphed)

Statement on Farm Program Policy for the Future, by Clinton P. Anderson, Secretary of Agriculture, before the Senate Committee on Agriculture. January 23, 1947. 8 pp. (Mimeo graphed)

Cotton Accomplishment, by Clinton P. Anderson, Secretary of Agriculture, Galveston, Tex. January 28, 1947. 13 pp. (Mimeo graphed)

New Relationships Between Food Production and Food Distribution, by E. A. Meyer, Administrator, Research and Marketing Act, Atlantic City, N. J. January 22, 1947. 6 pp. (Mimeo graphed)

Publications:

Report of the Administrator of the Production and Marketing Administration, 1946. 75 pp. (Printed)

Rice Production and Marketing in the United States. MP 615. (PMA) January 1947. 32 pp. (Printed)

The Wholesale Market for Fruits, Vegetables, Poultry, and Eggs in New Haven, Conn. (PMA) 106 pp. (Mimeo graphed)

The Tobacco Industry of the Philippines and Its Relation to the United States. (PMA) November 1946. 53 pp. (Multilithed)

Cotton Futures Statistics, August 1942 to July 1945. CS-22. (PMA) January 1947. 55 pp. (Multilithed)

Cotton Quality Statistics, United States, 1945-46. CS-21. (PMA) December 1946. 62 pp. (Multilithed)

Fiber and Spinning Test Results for Some Upland Cottons Grown in Selected Standardized-Variety Areas, Crop of 1946. (PMA) December 1946. 13 pp. (Multilithed)

